

EXPRESS MAIL NO. EL896635999US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Pascual Royo Gracia,) RE: PRELIMINARY AMENDMENT  
et al. )  
Serial No.: Not yet assigned ) Group: Not yet assigned  
Filed: Concurrently herewith ) Examiner: Not yet assigned  
For: "OLEFIN POLYMERIZATION ) Our Ref: B-4464 619461-1  
CATALYSTS" ) Date: January 18, 2002

Commissioner of Patents and Trademarks  
Box New Patent Application  
Washington, D.C., 20231

Sir:

Prior to examination of the above-identified application, please enter the following amendments and remarks into the prosecution history of the above-identified U.S. patent application without prejudice or disclaimer.

IN THE CLAIMS

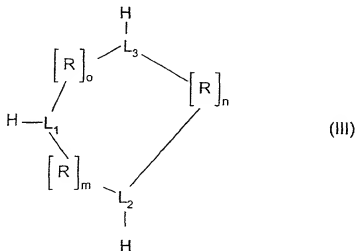
Please replace Claims 7-9 as filed with the amended Claims 7-9, which are set forth below. (Appendix A, which is enclosed herewith, shows how original Claims 7-9 were amended to produce amended Claims 7-9. In Appendix A, the portions being added are underlined; and the portions being deleted are enclosed in brackets.)

7. (Amended) Catalyst component comprising a compound according to claim 1 and a porous support.

8. (Amended) Olefin polymerization catalyst comprising a catalyst component according to claim 1 and a cocatalyst selected from aluminoxanes and boron Lewis acids.

1052476.011802

9. (Amended) Process for preparation of catalyst components according to claim 1 including reacting a compound of formula  $MX_{q+3}$  wherein **M** is a transition metal of groups 3, 4-10, lanthanide or actinide of the periodic table of the elements, **X** is a monovalent anionic ligand and **q** is 0, 1, 2, or 3 depending on the valence of the metal **M**, with a compound of formula III



wherein

each **R** is independently a structural bridge rigidly connecting **L**<sub>1</sub>, **L**<sub>2</sub> and **L**<sub>3</sub> and is constituted by 1 to 4 chain atoms selected from carbon, silicon, germanium, oxygen, boron; these atoms can be part of fused rings, aromatics rings or spiro rings;

**m**, **n** and **o** are 0 or 1, with the proviso that **m+n+o** is 2 or 3.

**L**<sub>1</sub> is a group of the cyclopentadienyl type or is isolobal to cyclopentadienyl, optionally substituted by one or more **R**<sup>1</sup> groups;

**L**<sub>2</sub> is a group of the cyclopentadienyl type or is isolobal to cyclopentadienyl, or it is selected from the group consisting of N, P, B when **m+n**=2, it is selected from the group consisting of **NR**<sup>1</sup>, **PR**<sup>1</sup>, **BR**<sup>1</sup>, O and S when **m+n**=1;

**L**<sub>3</sub> is selected from the group consisting of N, P, B when **n+o**=2, it is selected from the group consisting of **NR**<sup>1</sup>, **PR**<sup>1</sup>, **BR**<sup>1</sup>, O and S when **n+o**=1;

**R**<sup>1</sup> is hydrogen, C<sub>1</sub>-C<sub>20</sub> alkyl, C<sub>3</sub>-C<sub>20</sub> cycloalkyl, C<sub>6</sub>-C<sub>20</sub> aryl, C<sub>3</sub>-C<sub>20</sub> alkenyl, optionally comprising 1 to 5 heteroatoms such as Si, N, P, O, F, Cl, Br.

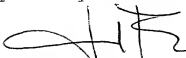
10052476.011802

Preliminary Amendment  
January 18, 2002  
Page 3

REMARKS

This Preliminary Amendment amends Claims 7-9 so that these claims are no longer multiply dependent in order to reduce the official fees. The Applicants may elect to amend Claims 7-9 to make them again multiply dependent or to add additional claims to this application to provide coverage similar to, broader than, or narrower than the present claims at any time during the pendency of the above-identified U.S. application.

Respectfully submitted,



John Palmer  
Reg. No. 36,885  
Attorney for Applicant  
LADAS & PARRY  
5670 Wilshire Boulevard #2100  
Los Angeles, California 90036  
(323) 934-2300

Enclosure: Appendix A (2 pages)

20110.94425001

Appendix A  
(VERSION WITH MARKINGS TO SHOW CHANGES MADE)

Page 1 of 2

RE: Applicant: Pascual Royo Gracia, et al.  
Title: "OLEFIN POLYMERIZATION CATALYSTS"  
Our Ref.: B-4464 619461-1

Please amend the Claims as indicated below.

7. (Amended) Catalyst component comprising a compound according to [claims 1-6]claim 1 and a porous support.

8. (Amended) Olefin polymerization catalyst comprising a catalyst component according to [claims 1-7]claim 1 and a cocatalyst selected from aluminoxanes and boron Lewis acids.

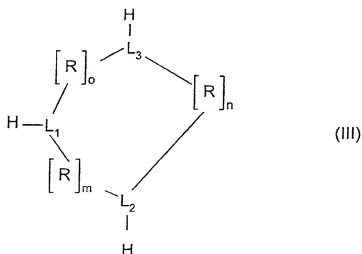
1052475-011802

# Appendix A

(VERSION WITH MARKINGS TO SHOW CHANGES MADE)

Page 2 of 2

9. (Amended) Process for [the] preparation of catalyst components according to [claims 1-6]claim 1 including reacting a compound of formula  $MX_{q+3}$  wherein M is a transition metal of groups 3, 4-10, lanthanide or actinide of the periodic table of the elements. X is a monovalent anionic ligand and q is 0, 1, 2, or 3 depending on the valence of the metal M, with a compound of formula III



wherein

each R is independently a structural bridge rigidly connecting L<sub>1</sub>, L<sub>2</sub> and L<sub>3</sub> and is constituted by 1 to 4 chain atoms selected from carbon, silicon, germanium, oxygen, boron; these atoms can be part of fused rings, aromatics rings or spiro rings;

m, n and o are 0 or 1, with the proviso that m+n+o is 2 or 3.

L<sub>1</sub> is a group of the cyclopentadienyl type or is isolobal to cyclopentadienyl, optionally substituted by one or more R<sup>1</sup> groups;

L<sub>2</sub> is a group of the cyclopentadienyl type or is isolobal to cyclopentadienyl, or it is selected from the group consisting of N, P, B when m+n=2, it is selected from the group consisting of NR<sup>1</sup>, PR<sup>1</sup>, BR<sup>1</sup>, O and S when m+n=1;

L<sub>3</sub> is selected from the group consisting of N, P, B when n+o=2, it is selected from the group consisting of NR<sup>1</sup>, PR<sup>1</sup>, BR<sup>1</sup>, O and S when n+o=1;

R<sup>1</sup> is hydrogen, C<sub>1</sub>-C<sub>20</sub> alkyl, C<sub>3</sub>-C<sub>20</sub> cycloalkyl, C<sub>6</sub>-C<sub>20</sub> aryl, C<sub>3</sub>-C<sub>20</sub> alkenyl, optionally comprising 1 to 5 heteroatoms such as Si, N, P, O, F, Cl, Br.

10052476-011802